

LONGITUDINAL STUDY OF
KANSAS FARM FAMILIES -
ASSESSMENT OF A MAIL SURVEY

by

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
United States and Kansas Rural-farm Population	1
Number of Farms in the United States and Kansas	2
Size of Farm	2
Mobility	3
Age	4
OBJECTIVES	5
PROCEDURE	5
Population Studied	6
Sample	6
Location of Families	7
Mailings	8
Introductory	9
Questionnaire	11
Follow-up	15
Analysis of Data	20
RESULTS	21
Response Rate	21
Comparison of Respondents and Nonrespondents	25
Age of Husband	26
Age of Wife	28
Morse-Johnston Scale	30
Size of Farm	33
Size of Family	35

	11
	Page
Income	37
Net Worth.	39
Life Insurance	43
SUMMARY AND DISCUSSION	46
RECOMMENDATIONS.	49
ACKNOWLEDGEMENTS	50
LITERATURE CITED	51
APPENDICES	53
A. Resumé of 1955 Study	
B. Questionnaire	

INTRODUCTION

Kansas agriculture has been undergoing many changes that have affected the economy of the state and of farm families. Basic sources of evidence of these changes are available from: The decennial Census of Population and the Census of Agriculture made every five years by the United States Bureau of the Census, and the annual Census of Kansas Population and Agriculture compiled by county assessors and filed with the Kansas State Board of Agriculture. These provide "cross sectional data." Comparisons of one year's data with another indicate changes for population groups, but not for individuals. Another approach to noting changes is to take individuals at some point in time, then observe them at another point in time. This "longitudinal method" was employed in the study being reported. It is unique in that it offers an opportunity to identify shifts in farming operations, provisions for financial security, and family life patterns for a sample of families first studied in 1955 and again in 1965.

This thesis describes the methods used in collecting the data, and presents an analysis of their statistical reliability. Subsequent reports on the comparison of farm families in 1955 with 1965 can be made with the limitations of the data known.

United States and Kansas Rural-farm Population

Kansas has shifted from a predominately agrarian economy with consequent shifts in population. Kansas rural-farm population has decreased from 444,000 in 1950 to 321,000 in 1960. This 28 percent change is less than the 40 percent decrease in the United States rural-farm population

for a comparable period (U. S. Bureau of Census, 1960). Furthermore, Kansas farm population decreased to 15 percent of the total population in 1960 from 23 percent in 1950 (Kansas State Board of Agriculture, 1950, 1960).

Farming constitutes a basic and important part of the Kansas economy. According to the Kansas Division of Economic Development (1966_b) there are 99,000 farm operators in Kansas. They gross \$1.5 billion in annual sales. In the aggregate, about 125,000 Kansans are employed in the agri-business aspects of modern agriculture. This number, plus the 145,000 farm workers, gives a total for agriculture of 270,000 or 37 percent of total employment for all industries in Kansas.

Numbers of Farms in the United States and Kansas

The number of farms in Kansas declined from 131,372 to 104,347 in the decade beginning in 1950 (U. S. Census of Agriculture, 1959). This 21 percent decrease in Kansas farms compares with 32 percent decrease in farms in the United States. The number of farms has been decreasing in Kansas, but proportionately, at a slower rate than in the United States.

Size of Farm

The Preemption and Homestead Acts of 1860 established the quarter-section (160 acres) as the size of farm homestead. Farms of that size may have been adequate for the farming techniques and capital requirements of 100 years ago. This size farm may provide adequate family income for some farmers. However, there is considerable variation in farm size. The Kansas Division of Economic Development (1966_c) reported for 1959 a range in farm size from 192 acres in eastern Kansas to 1,424 acres in

western Kansas. Also, large farms have grown larger. Farms having gross sales of \$20,000 and above increased in size from 2,133 acres in 1950 to 3,512 acres in 1959; all other farms decreased in average size (U. S. Census of Agriculture, 1959). The average size of a Kansas farm has more than doubled since 1910, from 244 acres to 504 acres in 1966 (Kansas Division of Economic Development Report, 1966_c).

Mobility

Distribution of labor force data over the past fifty years indicated labor mobility. In 1910, 30 percent of 37 million employed persons were classified as farmers and farm laborers. By 1940 the labor force had increased to 52 million, but the farmers and farm laborers decreased to 17 percent of the total. During the last 20 years the number of farm workers decreased by another four million. Of the more than 64 million employed in 1960, six percent were farmers and farm workers (U. S. Bureau of Census, 1910, 1940, 1960).

Pederson (1963) and Lansing, et. al. (1963) noted that farm residents are the least mobile of all residential groups. However, Guither (1965) noted that migration of farm families into non-farm occupations has increased continually. He also pointed out that the percentage of population living on farms has shown a steady decline since the first census of 1790. The absolute number of people on farms has declined steadily since 1935.

Kansans also are mobile. In 1960, 23 percent of the people of Kansas were living in a different county than the one in which they resided five years earlier. Not only are families moving, but they are moving from western Kansas. The twenty-nine most western counties in

Kansas lost 16 percent of their population between 1950 and 1960 while in total population Kansas increased by 14 percent, (Hajda and Orazem, 1962).

Age

The exodus of labor from farming during the last 15 years, according to Mondart and Curtis (1965), has left the farm population heavily weighted toward older operators. According to the 1950 census, the average age of farm operators in Kansas was 48.4 years. By 1954 this had increased to 48.6 years, and in 1959, it was 50.5 years. The increases are small and may reflect either greater life expectancy or migration differentials.

The change in age distribution is evident in the changes in structure of the age groups. Although the number of farm operators declined in the ten year period 1950-59 by 20 percent, those in the age group of 25 or under had declined by 57 percent. Those 65 or over decreased by only four percent. The majority of farm operators leaving farms are younger farmers, and fewer younger men are becoming farm operators (U. S. Census of Agriculture, 1959).

The age distribution of the population and its relative location within the state has changed in the past three decades. About one-third of the population is less than 18 years of age, (Kansas Department of Economic Development, 1966_a), and 11 percent are over 65 years of age. Kansas ranks fifth among the 50 states in proportion of its population over age 65 (U. S. Department of Health, Education, and Welfare, 1966).

The aforementioned trends in agriculture are generally recognized. The outmigration of farm families to urban areas has received attention

not only in Kansas, but throughout the United States. A major affect has been the emergence of larger commercial farms and fewer farms.

A state-wide study of Kansas farm-operator families (Morse, 1965) provided a profile of family life at one point in time, 1955. Data obtained ten years later from these same families, provided information permitting comparison and insight into trends in farm family life.

OBJECTIVES

The over-all objectives of a longitudinal study of which this thesis is a part are to analyze the mobility of farm families and study changes over the ten year period from 1955 to 1965, by family characteristics of age of husband, age of wife, Morse-Johnston scale, size of farm, size of family, income, life insurance, and net worth.

However, since the 1965 data were obtained by means of a follow-up mail survey of those interviewed ten years previously, sampling errors could be expected. The objectives of this study relate to an assessment of these errors, specifically:

1. To estimate the percentage return from a mail survey.
2. To compare the 1955 families responding and not responding in 1965 by family characteristics, and test for significant differences.

PROCEDURE

Names and addresses of the 527 families interviewed in the 1955 study comprised the mailing list for this study. Each was sent a minimum of two mailings. Those less responsive required as many as six mailings.

The first mailing included a 100-page booklet giving the results of the 1955 study, a resumé of this booklet, and a letter from Mrs. Elinor Anderson, Extension Home Management Specialist. The purposes of this letter were to remind them of their participation in the 1955 study, to demonstrate the potential value and significance of such a study, and to alert them to the fact that they would be receiving a questionnaire in several weeks. The second mailing was the questionnaire. It was sent by certified mail, to provide information about the mobility of these families, and impress them with the seriousness of the project. Nonrespondents received as many as three follow-up letters asking for the return of the questionnaire. The 1955 data were subjected to the Kolmogorov-Smirnov test for differences between those responding and not-responding to the 1965 survey, to assess the representativeness of the 1965 respondents of the families surveyed in 1955.

Population Studied

Sample

The population base for this study was the families interviewed ten years previously as a part of the Kansas Agricultural Experiment Station Organized Research Project No. 427. Results of the 1955 interviews were reported by (Morse, 1965) in: "Economic Status and Family Security Provisions of Kansas Farm-Operator Families, 1955." He described in Appendix D of that report the method by which the families were selected to represent ten economic areas of the State of Kansas, and presented an analysis of the reliability of the data. In summary the procedures were:

The 1955 sample was taken from farm families listed by the county assessors for the 1954 annual Kansas Agriculture Census. They were interviewed in 1955-6 regarding 1955 farm operations. To insure state-wide coverage all ten economic areas, as defined by the 1954 United States Census of Agriculture, were used as strata. After eliminating counties that were predominantly urban, three counties were selected at random within each economic area. Within each of those 30 nonurban counties, three rural townships were selected at random. From the list of named residents, obtained from the county assessor's records for each of the 90 townships, approximately nine names were selected at random. This sampling procedure yielded 850 names, not all of whom were eligible. Only farm-operator, husband-wife families were eligible, and families broken by death or divorce, or not engaged in farm operations were ineligible. The survey yielded 527 usable schedules. An analysis made to estimate biases resulting from the nonrespondents showed that the sample of families represented adequately the farm-operator families in each of the ten areas.

Location of Families

A follow-up study was not contemplated in 1955, so no specific provision was made for preserving the identity of the participants. To keep the 1955 interview schedules confidential, the list of names and addresses with identifying code numbers of schedules was kept secret by the co-leader of the project, Mrs. Myrtle Correll, now deceased. Therefore, to obtain the list in 1965 required a considerable search of records: The schedules gave the code numbers reflecting area, county and townships in which the family resided, the date of the interview, information as to

size of family and size of farm, but not the family's name. Travel vouchers gave names and places, so it was possible to identify by days, groups of names and schedule numbers. Also, there was a list of names for each township with acres for each family in the original sample. However, this included the noneligible and nonrespondent families. Fortunately, as part of the study of bias in sample selection previously referred to, there was required a cross tabulation of acres as reported to the county assessors and acres as reported in the schedule, thus permitting the matching of schedules with the original list of names. All but four families were positively identified.

Elimination of post offices provided another complicating factor in locating families. After ten years, eight towns no longer had post offices. Old maps were consulted and postcards were written postmasters of nearby towns for new addresses.

Mailings

Mailings were programmed in three phases: (1) an introductory mailing, (2) distribution of the questionnaire, and (3) follow-up letters. The entire sequence of mailings extended over a 16-week period in this order: Introductory mailing / 3 week interval; questionnaire / 3 week interval; 1st follow-up letter / 2 week interval; 2nd follow-up letter / 4 week interval; 2nd questionnaire / 4 week interval; end. An additional last unprogrammed mailing included the return postage to those returning the booklet giving the 1955 results and a thank you letter for their cooperation.

Introductory

Dr. Harold E. Jones, Director of the Kansas Cooperative Extension Service was consulted for criticism of and assistance with this study, since it was related directly to the vital aspects of farm family living. Furthermore, it seemed that the study would be favorably received if it were identified with Extension, known by farm families for its helpful services. Dr. Jones granted permission to use the Cooperative Extension Service for the initial mailing, including use of the penalty mail privilege.

This introductory mailing included a cover letter from Mrs. Elinor Anderson, Extension Home Management Specialist, a 100-page booklet giving the results of the 1955 research study (Morse, 1965) and a resumé of that study (Appendix A).

In Mrs. Anderson's letter (see page 10) she reminded the farm families of their participation in the 1955 survey, made reference to the enclosed booklet and the resumé so they would identify generally with the study, see how such data are used in compiling research, and be assured the information they supply is kept confidential. She thanked them for making such a study possible. The tone of the letter was intended to reintroduce the farm families to the survey and to condition them for the questionnaire that was the second mailing they would receive in three weeks.

The booklet, "Economic Status and Family Security Provision of Kansas Farm-Operator Families, 1955" (Morse, 1965) included in this mailing presented the results of the 1955 survey, which involved interviews with each of these same farm families. To help point out some of the highlights of the study and to interpret the significant tables, a three-page resumé

Division of Extension
Extension Home Economics
Umberger Hall
MANHATTAN, KANSAS 66502
Phone: 913 JE 9-2211, Ext. 251

"Taking the UNIVERSITY to the PEOPLE"



June 8, 1966

Dear Cooperator:

About eleven years ago an interviewer from Kansas State University called on you. You gave generously of your time answering her many questions. Mrs. Umberger did 86% of the interviewing so it was probably she who visited you.

The information you supplied has been very useful in gaining a better understanding of your situations and in developing realistic programs. It was not until last year, however, that we put the results up in booklet form.

It is this booklet that I am sending to you for your interest.

You may be able to spot yourself among the 527 families. But we have been careful not to reveal personal information that would enable anyone else to identify you.

This is not light reading, so I have asked Dr. Morse to highlight some points of interest. I am sure he would be interested in your comments.

I am anxious that you read and discuss this material with your friends for it gives a broad base for understanding the family economic situation of Kansas farm operators.

And on behalf of myself and many others, I want to thank you for your assistance.

Sincerely yours,

Mrs. Elinor Anderson
Home Management Specialist

Enclosure: "Economic Status and Financial Security Provisions of
Kansas Farm-Operator Families, 1955."

accompanied the booklet (Appendix A). The intended effect was to remind the farm families of their earlier effort, help them identify with the study and appreciate its value.

Only a limited edition of the booklet had been printed, so it was necessary to have some copies returned to provide the 527 needed. A note (see page 12) was enclosed informing each family that if the booklet was returned the family would be reimbursed for postage. The first mailing, therefore, was delayed for approximately 100 families. Returned pamphlets that were identified by those who gave a return address were sent stamps and a letter thanking them for their cooperation (see page 13).

Questionnaire

Three weeks after the introductory mailing, the four-page questionnaire (Appendix B) was mailed first class via certified mail with a return card. It was accompanied by a cover letter (see page 14) from the Department of Family Economics which explained the reason for using certified mail, referred to the booklet already received via the introductory mailing, asked their cooperation in answering the questionnaire, and pledged confidentiality of the information. A stamped, self-addressed return envelope was included.

A novel aspect of the procedure was that the 1955 data were transcribed in appropriate blanks throughout the questionnaire (Appendix B). These data facilitated recall and personalized the questionnaire.

Certified mail was used to involve the postal officers in locating as many families as possible. The post office helped by either delivering the certified letter, or returning it with reasons for nondelivery. If the family was located, postal officers obtained the signature of the

N O T I C E

What will you do with this pamphlet after you have finished reading it?
We would like it back. Our supply is running short.

You may return it, using the enclosed self-addressed envelope.

We will reimburse you for the postage. (Be sure your address
is on the envelope.)

Thank you.

Department of Family Economics
Kansas State University
Manhattan, Kansas 66502

Kansas State University

Manhattan, Kansas 66502

13

Department of Family Economics
Justin Hall

Dear

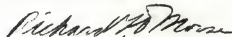
We appreciate your cooperation in answering our questionnaire. The response has been most gratifying.

The information is proving to be most helpful in comparing the farm situation of 1955 with 1965.

Enclosed are stamps to refund your postage for returning the pamphlet.

Thank you for your time and assistance.

Sincerely yours,



Richard L.D. Morse
Professor and Head

RLDN:pkg

Kansas State University

Manhattan, Kansas 66502

14

Department of Family Economics
Justin Hall

Dear Cooperator:

We are sending this to you via certified mail to make certain it reaches you. The Post Office will report to us those families who have moved. This is the least expensive way we know to trace families. It has been ten years since we interviewed you.

If this letter reaches you, you also should have received the booklet mailed two weeks ago by Mrs. Anderson. This was a report of a study made in 1956 in which you cooperated. If you did not get the booklet, please let us know and we will send another. We know it is not exactly light reading, yet we hope you found some parts of it interesting.

In these ten years there have been many changes. Some of these we can document with your cooperation. Enclosed is a brief questionnaire designed to contrast life today with what it was in 1955.

You can be assured that none of this information you supply us will be given to anyone else. And our report will not permit identification of any one family. This is our pledge.

A self-addressed stamped envelope is enclosed for your use in returning the questionnaire.

Thank you.

Sincerely yours,



Richard L. D. Morse
Professor and Head

addressee on the return card, stamped it with date and name of town, and returned it to the Department of Family Economics. Or, if the families could not be located, the entire letter was returned unopened, and on the outside of the envelope the reason for nondelivery was marked: "Unknown," "Unclaimed," "Addressee Unknown," "Moved, left no address," "Insufficient address," "Moved, not forwardable," "Not here," "Not in directory," "Refused," "Forwarding order expired," or "Gone over two years."

Follow-up

Those receiving the questionnaire, but not returning it in three weeks were sent a follow-up letter (see page 16) asking for their cooperation in the return of the questionnaire. If two weeks later they had not replied, a second follow-up letter was mailed (see page 17).

Four weeks following the mailing of the second and last follow-up letter, another questionnaire was mailed with a cover letter (see page 18). Four weeks after this mailing the quest for cooperation was ended. Only one questionnaire has been received since that date. It was not included in this study.

In addition to the follow-up letter requesting the return of the questionnaire, other letters were mailed. Postmasters of each town from which an undelivered questionnaire was returned were sent a follow-up letter requesting information as to how to reach the intended party (see page 19).

Families returning questionnaires with portions of the questions incomplete, illegible or ambiguous were sent a letter asking for clarification. To facilitate their reply, the information desired was typed on a postcard, with return address and code number for identification.

Kansas State University

Manhattan, Kansas 66502

16

Department of Family Economics
Justin Hall

Dear

Two weeks ago we mailed you a questionnaire.

If it is not already in the mail, I hope you will
send it soon.

Thank you.

Sincerely yours,

Richard L. D. Morse
Professor and Head

Kansas State University

Manhattan, Kansas 66502

17

Department of Family Economics
Justin Hall

Dear

Could you please mail us the questionnaire we sent to you a month ago.

We would like very much to hear from you.

Thank you.

Sincerely yours,

Richard L. D. Morse
Professor and Head

KANSAS STATE UNIVERSITY
Manhattan, Kansas 66502

18

September 13, 1966

Dear

Our study of farm families is almost complete,
but we are waiting to hear from you.

This has been a busy season and we thought you
could have misplaced the questionnaire we sent you
several months ago--so we are sending another.

May we hear from you soon?

Sincerely yours,



Richard L. D. Morse
Professor and Head

P.S. Enclosed is an envelope. Could you mail it
this week?

Thank you.

RLDM:ps

Enclosure

Kansas State University

Manhattan, Kansas 66502

19

Department of Family Economics
Justin Hall

September 23, 1966

Postmaster
Burden, Kansas

Dear Sir:

About eleven years ago a survey was made of 527 farm families across the state of Kansas. We are now in the process of doing a follow-up study. We have located most of the families via certified mail. However, we have received no response from Mr. and / or Mrs. Raymond Parsons.

As far as we know, their mailing address in 1955 was R. R. 1, Dexter, Kansas. We mailed a certified letter to this address and evidently it was forwarded to Burden because the return card was postmarked Burden. We mailed a second letter to them at the Dexter address and it was returned marked unknown. Can you help us?

It would be most helpful if we could reach this family.

Thank you for your assistance.

Sincerely yours,

Marilyn Anderson
Graduate Assistant

Incomplete questionnaires were returned to the family with another request for their cooperation.

Analysis of Data

The 1955 data were coded and transferred to IBM cards. Those cards and a code book to identify the responses are on file at the Kansas State University Statistical Laboratory. A code book is also on file in the Department of Family Economics.

Preparation of the 1965 questionnaire included coding for each response to permit counting and sorting by IBM. The 1965 information was coded in the same manner as the 1955 data for ease in comparison. As the questionnaires were received they were edited and coded.

IBM columns one to twenty-four of the original data gave the identifying characteristics of the families in 1955: their code number, age of husband and wife, number of years married, period in life cycle, size of farm, income, net worth, life insurance and Morse-Johnston scale.

These first twenty-four columns were transferred to new cards and the 1965 questionnaire data were placed in columns twenty-five through sixty-four. Column eighty was used for classifying the response of the 1955 families to the 1965 survey. In this study columns one through twenty-four and column eighty are used.

A print-out of the sixty-five columns punched on the IBM cards was made. Each code number was checked for accuracy by reading and checking the print-out against the original information.

The Kansas State University Statistical Laboratory ran two-way count tables and chi square tests. The IBM 1040 computer, an electronic data

process, provided information for comparing the respondents and nonrespondents and for applying the Kolmogorov-Smirnov test (Siegel, 1956).

RESULTS

The response rate to the mail questionnaire is discussed first, followed by comparisons of the 1955 data by respondent and nonrespondent in 1965 according to family characteristics: age of husband, age of wife, Morse-Johnston Scale, size of farm, size of family, income, net worth, and life insurance. Also tests for significant differences between families responding and those not responding to the 1965 mail survey, for each of their 1955 family characteristics are presented.

Response Rate

Questionnaires were mailed to all 527 families by certified mail, and the date of their return was recorded. The reason for nondelivery was also recorded for those returned by the postmaster. Information was obtained from or about 94 percent of the 527 families, but only 80 percent were usable. The response by mailing sequence is presented in Table 1.

TABLE 1.--Questionnaire response by mailing sequence

Mailings	By mail sequence		All			
	No.	Per- cent	Usable		Not usable	
			No.	Per- cent	No.	Per- cent
Questionnaire	<u>527</u>	<u>100</u>				
Returned by participants	294	56	275	52	19	4
Not returned	233	44				
1st follow-up to families	<u>233</u>	<u>100</u>				
Returned by participants	105	45	83	16	22	4
Not returned	128	55				
2nd follow-up to families	<u>128</u>	<u>100</u>				
Returned by participants	41	32	41	8	0	0
Not returned	87	68				
2nd questionnaire mailed	<u>87</u>	<u>100</u>				
Returned by participants	21	25	21	4	0	0
Unanswered	66	75			66	12
Total	527	100	420	80	107	20

After three weeks 294 families (56%) had returned questionnaires. Three follow-up mailings produced an additional 20 percent, eight percent and four percent return respectively. Another indication of the reduction in response rate with subsequent mailing may be noted for the percent return with each successive mailing, starting with over one-half returns from the initial mailing, with slightly less than half from the second follow-up, followed by a 32 percent, then 25 percent return from the last two follow-up letters.

The response rate is even higher than previously indicated in that some information was obtained about all but 30 or six percent of the families. Of the other 77 families from whom usable questionnaires were not obtained, 41 could not be delivered by the postmaster because the families were "Unknown," "Deceased," or had "Moved." The remaining 36 were returned but were incomplete and unusable. Several refused to cooperate while others left out vital information or refused to give it when sent a card asking for the information.

A complete tabulation of the 107 from whom usable schedules were not obtained is found in Table 2.

TABLE 2.--Nonusable questionnaires, classified

Nonrespondents	No.	All
Deceased		13
Unlocated		32
Unclaimed and unknown	14	
Moved--gone over two years, left no address, not here	11	
Insufficient address	3	
Answered, but incomplete	4	
Refused		62
Not received--no reason	30	
Received with note of refusal	16	
Received blank	<u>16</u>	—
Total		107

Comparison of Respondents and Nonrespondents

Since returns in 1965 were not complete, comparisons were made of the respondents with the nonrespondents. Known data of the 1955 respondents were compared with each family characteristic: age of husband, age of wife, Morse-Johnston scale, size of farm, size of family, income, net worth, and life insurance. The incomplete returns were classified as "deceased," "unlocated," and "refused." These were combined as "nonrespondents" for comparisons with the "respondents" for use of the Kolmogorov-Smirnov test (Siegel, 1956). This test considered the differences in the cumulative relative frequencies of the respondents and nonrespondents for each family characteristic. The magnitude of the largest difference determines whether the null hypothesis of no significant difference between these two groups should be rejected.

For each family characteristic, there is a table presenting the accumulative frequencies of respondents and nonrespondents, and their differences, with the significant level indicated. This is accompanied by another table giving the relative and absolute frequencies of families, classified by the four response classes and the original 527 families.

Age of Husband

The differences in age of husband distributions were significant (Table 3). The nonrespondents in 1965 tended to be older in 1955 than those responding. This is true for all three classes of nonrespondents, and is particularly true of those "deceased" in 1965 (Table 4).

TABLE 3.--Cumulative relative frequency of 1955 families by age of husband and by response in 1965

Age of Husband	Respondents		Nonrespondents		Differences
	No.	Percent	No.	Percent	in Percents
20 - 24	2	0.48	1	0.93	0.45
25 - 29	20	5.24	3	3.73	1.51
30 - 34	44	15.72	9	12.14	3.58
35 - 39	46	26.67	12	23.35	3.32
40 - 44	59	40.72	7	29.89	10.83
45 - 49	72	57.86	13	42.04	15.82*
50 - 54	50	69.76	15	56.06	13.70
55 - 59	38	78.81	8	63.54	15.27
60 - 64	40	88.33	11	73.82	14.51
65 - 69	31	95.71	15	87.84	7.87
70 - 74	14	99.04	9	96.25	2.79
75 +	4	99.99	4	99.99	
Total	420		107		
Mean	48.1		52.4		

*Significant at the 5% level.

TABLE 4.--Distribution of 1955 families by age of husband and by response in 1965

Age of Husband	Respondents			Nonrespondents				All	
	No.	Percent	Deceased		Unlocated		Refused		No. Percent
			No.	Percent	No.	Percent	No.	Percent	
20 - 24	2	0.5					1	1.6	3 0.6
25 - 29	20	4.8			1	3.1	2	3.2	23 4.4
30 - 34	44	10.5			2	6.2	7	11.3	53 10.1
35 - 39	46	11.0	1	7.7	4	12.5	7	11.3	58 11.0
40 - 44	59	14.0			5	15.6	2	3.2	66 12.5
45 - 49	72	17.1			2	6.2	11	17.7	85 16.1
50 - 54	50	11.9	1	7.7	6	18.8	8	12.9	65 12.3
55 - 59	38	9.0	1	7.7	2	6.2	5	8.1	46 8.7
60 - 64	40	9.5	2	15.4	3	9.4	6	9.7	51 9.7
65 - 69	31	7.4	3	23.1	3	9.4	9	14.5	46 8.7
70 - 74	14	3.3	3	23.1	3	9.4	3	4.8	23 4.4
75 +	4	1.0	2	15.4	1	3.1	1	1.6	8 1.5
Total	420	100.0	13	100.1	32	99.9	62	99.9	527 100.0
Mean	48.1		64.8		50.9		50.5		49.0
Median	47.7		68.3		51.7		50.6		48.7

Age of Wife

The differences in age of wife distributions were significant (Table 5). The nonrespondents in 1955 tended to be older in 1955 than those responding. This is particularly true of those "deceased" in 1965 (Table 6).

TABLE 5.--Cumulative relative frequency of 1955 families
by age of wife and by response in 1965

Age of Wife	Respondents		Nonrespondents		Differences in Percents
	No.	Percent	No.	Percent	
Under 20	1	0.24			0.24
20 - 24	18	4.52	5	4.67	- 0.15
25 - 29	33	12.38	8	12.15	0.23
30 - 34	49	24.05	15	26.17	2.12
35 - 39	64	39.29	8	33.65	5.64
40 - 44	63	54.29	8	41.13	13.16
45 - 49	57	67.86	10	50.47	17.39*
50 - 54	43	78.10	15	64.49	13.61
55 - 59	38	87.15	12	75.70	11.45
60 - 65	32	94.77	14	88.78	5.99
65 - 69	17	98.82	8	96.26	2.56
70 - 74	3	99.53	4	100.00	- 0.47
75 +	2	100.01			
Total	420		107		
Mean	44.6		52.8		

*Significant at the 5% level.

TABLE 6.--Distribution of age of wife in 1955 by response in 1965

Age of Wife	Respondents		Nonrespondents				All			
	No.	Percent	Deceased		Unlocated		Refused			
			No.	Percent	No.	Percent	No.	Percent		
Under 20	1	0.2						1	0.2	
20 - 24	18	4.3			1	3.1	4	6.4	23	4.4
25 - 29	33	7.9			2	6.2	6	9.7	41	7.8
30 - 34	49	11.7			8	25.0	7	11.3	64	12.1
35 - 39	64	15.2	1	7.7			7	11.3	72	13.7
40 - 44	63	15.0								
45 - 49	57	13.6			3	9.4	5	8.1	71	13.5
50 - 54	43	10.2			3	9.4	7	11.3	67	12.7
55 - 59	38	9.1	2	15.4	4	12.5	9	14.5	58	11.0
60 - 64	32	7.6	2	15.4	4	12.5	6	9.7	50	9.5
65 - 69	17	4.0	4	30.8	4	12.5	6	9.7	46	8.7
70 - 74	3	0.7	2	15.4	2	6.2	4	6.4	25	4.7
75 +	2	0.5	2	15.4	1	3.1	1	1.6	7	1.3
Total	420	100.0	13	100.1	32	99.9	62	100.0	527	100.0
Mean	44.6		60.6		47.6		53.9		45.3	
Median	43.7		62.5		47.3		46.4		44.4	

Morse-Johnston Scale

In the Morse-Johnston Scale families with children are grouped by increasing age and educational status of the youngest child. In this study the Morse-Johnston Scale was simplified by deleting the sub-classes for numbers of children. The "Two-member-family" category included some younger families, but predominately consisted of those in the "empty nest" stage of the family life cycle. They consisted of three families with wife under 25 years of age, eight with wife 25 through 34 years of age, 11 with wife 35 through 44 years of age. The remaining 153 were 45 and older, and 126 represented the "empty nest" stage, whose children have left home (Morse, 1965).

The difference in the Morse-Johnston Scale distributions was significant (Table 7). The major difference in the distribution of the three classes of nonrespondents was the "deceased" with 157 being two-member families in 1955 (Table 8). Ten of the 13 deceased nonrespondents appear in the "Two-member-family" category (Table 8).

TABLE 7:--Cumulative relative frequency of 1955 families by
the Morse-Johnston Scale and by response in 1965

Morse-Johnston Scale	Respondents No. Percent		Nonrespondents No. Percent		Differences in Percents
Youngest child of family -					
Infant	22	5.24	8	7.48	- 2.24
Pre-school	80	24.29	13	19.63	4.66
Grade school	109	50.24	21	39.26	10.98
High School	45	60.95	10	48.60	12.35
College	13	64.05	2	50.47	13.58†
Over 18 at home	20	68.81	9	58.88	9.93
Two-member family	131	100.00	44	100.00	
Total	420		107		

[†]Significant at the 10% level.

TABLE 8.--Distribution of 1955 families by the Morse-Johnston Scale and by response in 1965

Morse-Johnston Scale	Respondents		Nonrespondents				All	
	No.	Percent	Deceased		Unlocated		Refused	
			No.	Percent	No.	Percent	No.	Percent
Youngest child of family -								
Infant	22	5.2			2	6.2	6	9.7
Pre-school	80	19.0	1	7.7	6	18.8	6	9.7
Grade school	109	26.0			5	15.6	16	25.8
High School	45	10.7			3	9.4	7	11.3
College	13	3.1			1	3.1	1	1.6
Over 18 at home	20	4.8	2	15.4	4	12.5	3	4.8
Two-member family	131	31.2	10	76.9	11	34.4	23	37.1
Total	420	100.0	13	100.0	32	100.0	62	100.0
							527	99.9

Size of Farm

There was no significant difference in the distributions of families by size of farm for respondents and nonrespondents (Table 9).

The nonrespondents had smaller farms than the respondents. Those who were "deceased" in 1965 were operating small farms in 1955. The next group was the "unlocated," and even those who "refused" were not among the large farm operators (Table 10).

TABLE 9.--Cumulative relative frequency of 1955 families by size of farm and by response in 1965

Size of Farm	Respondents No. Percent		Nonrespondents No. Percent		Differences in Percents
-40 acres	7	1.67	2	1.87	- 0.20
41 - 80	15	5.24	5	6.54	- 1.30
81 - 160	46	16.19	24	28.97	-12.78
161 - 320	142	50.00	32	58.88	- 8.88
321 - 640	117	77.86	26	83.18	- 5.32
641 - 960	41	87.62	13	95.33	- 7.77
961 - 1,600	34	95.72	4	99.07	- 3.35
1,601 +	18	100.00	1	100.00	
Total	420		107		
Mean	611		403		

TABLE 10.--Distribution of 1955 families by size of farm and by response in 1965

Size of Farm	Respondents		Nonrespondents				All	
	No.	Percent	Deceased		Unlocated		Refused	
			No.	Percent	No.	Percent	No.	Percent
- 40 acres	7	1.7					2	3.2
41 - 80	15	3.6	2	15.4	2	6.2	1	1.6
81 - 160	46	10.9	3	23.1	8	25.0	13	21.0
161 - 320	142	33.8	6	46.2	9	28.1	17	27.4
321 - 640	117	27.9	2	15.4	6	18.8	18	29.0
641 - 960	41	9.8			6	18.8	7	11.3
961 - 1,600	34	8.1			1	3.1	3	4.8
1,601 +	18	4.3					1	1.6
Total	420	100.1	13	100.1	32	100.0	62	99.9
Mean	611		229		392		446	
Median	320		214		268		299	
							537	
							310	

Size of Family

There was no significant difference in distribution of families classified by size for the respondents and nonrespondents (Table 11).

The nonrespondent families were larger than the respondent families. The "deceased" had the largest families. The size of families includes all living children ever had (Table 12).

TABLE 11.--Cumulative relative frequency of 1955 families by size and by response in 1965

Size of Family (children)	Respondents		Nonrespondents		Differences in Percents
	No.	Percent	No.	Percent	
None	38	9.05	7	6.54	2.51
1	71	25.95	14	19.62	6.33
2	117	53.81	28	45.79	8.02
3	89	75.00	21	65.42	9.58
4	48	86.43	17	81.31	5.12
5	32	94.05	4	85.05	9.00
6	11	96.67	7	91.59	5.08
7	6	98.10	4	95.33	2.77
8	3	98.81	2	97.20	1.61
9	3	99.52	1	98.13	1.39
10	1	99.76		98.13	1.63
11			1	99.06	0.70
12	1	100.00		99.06	0.94
13				99.06	0.94
19			1	99.99	
Total	420		107		
Mean ^a		4.6		5.2	

^aAverage number of children plus two parents.

TABLE 12.--Distribution of family size by children ever had in 1955 by response in 1965

Size of Family (children)	Respondents			Nonrespondents				All	
	No.	Percent	Deceased No.	Unlocated		Refused		No.	Percent
				No.	Percent	No.	Percent		
None	38	9.0	1	2	6.3	4	6.4	45	8.5
1	71	16.9	1	2	6.3	11	17.7	85	16.1
2	117	27.9	2	9	28.1	17	27.4	145	27.5
3	89	21.2	2	12	37.5	7	11.3	110	20.9
4	48	11.4	3	3	9.4	11	17.7	65	12.3
5	32	7.6	1	7.7		3	4.8	36	6.8
6	11	2.6	1	2	6.3	4	6.4	18	3.4
7	6	1.4	1	1	3.1	2	3.2	10	1.9
8	3	0.7	1	1	3.1	1	1.6	5	0.9
9	3	0.7				1	1.6	4	0.8
10	1	0.2				1	1.6	1	0.2
11								1	0.2
12									
13	1	0.2						1	0.2
19			1	7.7				1	0.2
Total	420	99.8	13	100.1	32	100.1	99.7	527	99.9
Mean ^a	4.6		6.6	5.0		5.1		4.8	
Median ^a	4.7		5.3	4.2		3.9		3.9	

^aAverage number of children plus two parents.

Income

There is no significant difference in the distributions of families by income for the respondents and nonrespondents (Table 13).

Nevertheless the "deceased" in 1965 had the lowest average income in 1955, followed by the "unlocated" and the "refused" (Table 14).

TABLE 13.--Cumulative relative frequency of 1955 families by income and by response in 1965

Income	Respondents No. Percent		Nonrespondents No. Percent		Differences in Percents
Net Loss					
4,501 - 5,500			1	0.93	- 0.93
3,501 - 4,500					
2,501 - 3,500	1	0.24		0.93	- 0.69
1,500 - 2,500	4	1.19	1	1.86	- 0.67
501 - 1,500	4	2.14	1	2.69	- 0.65
less than 500	5	3.33	2	4.66	- 1.33
Net Income					
less than 500	17	7.38	6	10.27	- 2.89
501 - 1,500	64	22.62	22	30.83	- 8.21
1,501 - 2,500	89	43.81	19	48.59	- 4.78
2,501 - 3,500	75	61.67	21	68.22	- 6.55
3,501 - 4,500	49	73.34	8	75.70	- 2.36
4,501 - 5,500	39	82.62	8	83.18	- 0.56
5,501 - 6,500	23	88.10	8	90.66	- 2.56
6,501 - 7,500	15	91.67	5	95.33	- 3.66
7,501 - 8,500	11	94.29	1	96.26	- 1.97
8,501 - 9,500	6	95.72			- 0.54
9,501 - 10,500	6	97.15	1	97.19	- 0.04
10,501 - 20,500	8	99.05	1	98.12	0.93
20,501 +	3	99.76			1.64
y	1	100.00	2	99.98	0.02
Total	420		107		
Mean	\$3,607		\$3,039		

TABLE 14.--Distribution of income in 1955 by response in 1965

Income	Respondents			Nonrespondents			All		
	No.	Percent	Deceased No. Percent	Unlocated No. Percent	Refused No. Percent	No. Percent	No.	Percent	No. Percent
Net losses									
4,501 - 5,500				1	3.1		1	0.2	0.2
3,501 - 4,500									
2,501 - 3,500	1	0.2					1	0.2	0.2
1,501 - 2,500	4	1.0				1	1	1.6	0.9
501 - 1,500	4	1.0				1	1	1.6	0.9
less than 500	5	1.2	1	7.7		3.1	7	1.3	1.3
Net income									
less than 500	17	4.0		2	6.2		4	6.4	4.4
501 - 1,500	64	15.2	5	38.5		18.8	11	17.7	16.3
1,501 - 2,500	89	21.2	4	30.8		15.6	10	16.1	20.5
2,501 - 3,500	75	17.9	3	23.1		31.2	8	12.9	18.2
3,501 - 4,500	49	11.7				9.4	5	8.1	10.8
4,501 - 5,500	39	9.3				6.2	6	9.7	8.9
5,501 - 6,500	23	5.5				3.1	7	11.3	5.9
6,501 - 7,500	15	3.6				3.1	4	6.4	3.8
7,501 - 8,500	11	2.6		1			1	1.6	2.3
8,501 - 9,500	6	1.4							
9,501 - 10,500	6	1.4					1	1.6	1.3
10,501 - 15,500	8	1.9					1	1.6	1.7
15,501 - 20,500	3	0.7							0.6
20,501 + y	(1)						(2)	3.2	0.4
							(2 refused in 1955)		
Total	420	99.8	13	100.1		99.8	32	62	527 99.9
Mean	3,607		1,848			2,476		3,579	3,492
Median	2,834		1,700			2,500		3,000	2,800

Net Worth

There was no significant difference in the distribution of families by net worth for the respondents and nonrespondents. This is true whether families are classified by quintals (Table 15) or by net worth levels (Table 16) with the single exception of "deceased," the average (mean) net worth value was within \$100 from the over-all average (Table 18).

TABLE 15.--Cumulative relative frequency of 1955 families by net worth quintals and by response in 1965

Net Worth	Respondents		Nonrespondents		Differences in Percents
	No.	Percent	No.	Percent	
00,000 - 10,000	78	18.57	26	24.30	-5.73
10,001 - 20,000	83	38.33	20	42.99	-4.66
20,001 - 35,000	82	57.85	24	65.42	-7.57
35,001 - 62,000	89	79.04	20	84.11	-5.07
62,001 - 657,700	88	99.99	17	99.91	0.08
Total	420		107		
Mean		\$44,325		\$41,672	

TABLE 16.--Cumulative relative frequency of 1955 families by net worth levels and by response in 1965

Net Worth	Respondents		Nonrespondents		Differences in Percents
	No.	Percent	No.	Percent	
00,000 or less	2	0.48			0.48
00,000 - 10,000	76	18.58	26	24.30	- 5.72
10,001 - 20,000	82	38.10	20	42.99	- 4.89
20,001 - 30,000	58	51.91	20	61.68	- 9.77
30,001 - 40,000	41	61.67	9	70.09	- 8.42
40,001 - 50,000	33	69.53	10	79.43	- 9.90
50,001 - 100,000	92	91.43	8	86.91	4.52
100,001 - 150,000	17	95.48	9	95.32	0.16
150,001 - 200,000	12	98.34	2	97.19	1.15
201,000 +	7	100.01	3	99.99	0.02
Total	420		117		
Mean		\$44,325		\$41,672	

TABLE 17.--Distribution of net worth levels in 1955 by response in 1965

Net Worth	Respondents			Nonrespondents				All	
	No.	Percent	Deceased		Unlocated		Refused		No. Percent
			No.	Percent	No.	Percent	No.	Percent	
less than 10,000	78	18.5	3	23.1	8	25.8	15	24.2	104 19.7
10,000 - 20,000	83	19.7	3	23.1	9	29.0	8	12.9	103 19.5
20,001 - 35,000	82	19.5	3	23.1	4	12.9	17	27.4	106 20.1
35,001 - 62,000	89	21.4	3	23.1	7	19.4	10	16.1	109 20.7
62,001 - 657,700	88	20.9	1	7.7	4	12.9	12	19.4	105 19.9
Total	420	100.0	13	100.1	32	100.0	62	100.0	527 99.9
Mean		\$44,325		\$29,654		\$42,616		\$43,706	\$43,796

TABLE 18.--Distribution of net worth in 1955 by quintals and by response in 1965

Net Worth	Respondents			Nonrespondents			All		
	Deceased			Unlocated			Refused		
	No.	Percent	No.	No.	Percent	No.	No.	Percent	No.
00,000 or less	2	0.5							
00,000 - 10,000	76	18.1	3	8	25.0	15	24.2	2	0.4
10,001 - 20,000	82	19.5	3	9	28.1	8	12.9	102	19.4
20,001 - 30,000	58	13.8	1	4	12.5	15	24.2	102	19.4
30,001 - 40,000	41	9.8	2	2	6.2	5	8.1	78	14.8
40,001 - 50,000	33	7.9	3	3	9.4	4	6.4	50	9.5
50,001 - 100,000	92	21.9	2	2	6.2	6	9.7	43	8.2
100,001 - 150,000	17	4.0	1	2	6.2	6	9.7	100	19.0
150,001 - 200,000	12	2.9				2	3.2	26	4.9
201,000 +	7	1.7		2	6.2	1	1.6	14	2.6
Total	420	100.1	13	32	99.8	62	100.0	527	100.1
Mean	44,325		29,654	42,616		43,706		43,796	
Median	28,620		30,000	19,000		26,000		28,000	

Life Insurance

There was a significant difference in the distribution of families classified by their life insurance holdings in 1955 for the respondents and nonrespondents in 1965. The major differences were among those with little or no insurance or who were reluctant to supply information in 1955; with the nonrespondents being more frequent in these categories (Table 19).

Among the nonrespondents, more (61%) of those who "refused" to participate in 1965 had given insurance information in 1955 more frequently than had the other nonrespondent groups, the "unlocated" (55%) and the "deceased" (46%). Those who supplied information in 1955 as to the amount of insurance held were approximately alike in their distribution between the various response categories.

TABLE 19.--Cumulative relative frequency of 1955 families
by life insurance and by response in 1965

Life Insurance	Respondents		Nonrespondents		Differences in Percents
	No.	Percent	No.	Percent	
No information or none	99	23.57	46	42.99	-19.42
Insured - no value given	1	23.81		42.99	-19.18
500 or less	3	24.52		42.99	-18.47
501 - 1,000	28	31.19	10	52.33	-21.14**
1,001 - 5,000	141	64.76	26	76.63	-11.87
5,001 - 10,000	89	85.95	21	96.26	-10.31
10,001 - 15,000	25	91.90	1	97.19	- 5.29
15,001 - 20,000	14	95.23	1	98.12	- 2.89
20,001 - 25,000	6	96.66	1	99.05	- 2.39
25,001 - 50,000	8	98.56	1	99.98	- 1.42
50,001 +	6	99.99		99.98	0.01
Total	420		107		

**Significant at the 1% level.

TABLE 20.--Distribution of life insurance in 1955 by response in 1965

Life Insurance	Respondents		Nonrespondents				All	
	No.	Percent	Deceased		Unlocated		Refused	
			No.	Percent	No.	Percent	No.	Percent
No information or none	99	23.8	7	53.8	15	45.2	24	38.7
Insure but no value given	1	0.2						
500 or less	3	0.7					1	0.2
501 - 1,000	28	6.6					3	0.6
1,001 - 5,000	141	33.5	2	15.4	4	12.9	38	7.2
5,001 - 10,000	89	21.1	2	15.4	6	19.4	167	31.7
10,001 - 15,000	25	5.9	2	15.4	5	16.1	110	20.9
15,000 - 20,000	14	3.3			1	3.2	26	4.9
20,001 - 25,000	6	1.4					15	2.8
25,001 - 50,000	8	1.9			1	3.2	7	1.3
50,000 +	6	1.4					9	1.7
							6	1.1
Total	420	99.8	13	100.0	32	100.0	62	99.9
							527	99.9

SUMMARY AND DISCUSSION

The response rate of the 527 farm families to the mail survey provided 420 (80%) usable questionnaires. Some information was obtained regarding 94% of the families. However, the 14 percent difference is accounted for by 2 percent deceased, 6 percent moved or were unlocated, and 6 percent refused. No information was obtained about the remaining 6 percent who allegedly were located by the postmaster, but failed to respond to subsequent phases of the survey.

The mail survey was a success in terms of the high response rate, the small amount of time used (16-week mail sequence), and money spent per family (50¢ per certified letter).

Several techniques were used which contributed to the success of this mail survey. The questionnaires were personalized by placing 1955 data in appropriate blanks on each individual schedule. Certified mail impressed the participants with the importance of the survey. The services of the postmaster were enlisted in insuring delivery or reason for non-delivery. The certified card with signature of recipient of the questionnaire provided information even from those who failed to respond to the questionnaire. The follow-up letters also showed persistence and interest in obtaining responses.

The 1955 families were significantly different from those responding in 1965 in regard to the four basic family characteristics of age of husband and wife, Morse-Johnston scale, and life insurance as discussed below.

The average age of the husband of the respondents was 48.1 compared with 52.4 of the nonrespondents. As might be expected, the older husbands

in the 1955 families were deceased in 1965, thus being partially responsible for the relatively small age difference. The average age of the wife of the respondents was 44.6 compared with 52.8 of the nonrespondents. This eight year difference likewise is a result of the older age of the deceased (60.6). Advanced age and widowhood also contributed to the older ages of those who refused (53.9) and those unlocated (47.6).

The Morse-Johnston scale classified families of similar family responsibilities. These were grouped according to educational status and age of the youngest child, and by age of wife for childless families. Although the difference in distributions is significant at the 10% level, according to the Kolmogorov-Smirnov test, there seems no rationale for the difference other than obvious influence of the deceased.

The distributions of life insurance holdings of the respondents and nonrespondents were significantly different. The respondents tended to be among those reporting higher insurance holdings. Those who in 1955 failed to give insurance information were those who failed again in 1965.

The 1955 families, grouped according to response in 1965, were not significantly different in the remaining four basic family characteristics of farm size, family size, income and net worth discussed below.

Farms varied in mean size according to response in 1965, but these differences were not significant according to the Kolmogorov-Smirnov test. The respondents had larger farms of 611 acres as compared to 403 acres for the nonrespondents. Among the nonrespondents those "refusing" had 446 acres, and the "unlocated" had 392 acres, and the "deceased" had noticeably smaller farms of 229 acres.

Family size variations were also not significant according to the Kolmogorov-Smirnov test. The nonrespondent families in 1955 were larger by 0.6 than the respondent family size of 4.6. Again, the "deceased" were the greatest influence with an average family size of 6.6. The "unlocated" and "refused" were of size 5.0 and 5.1, respectively.

The average income of the respondents was \$3,607 compared with \$3,039 for the nonrespondent. Although this \$568 difference was not statistically significant, the income of the "deceased" (\$1,848), and the "refused" (\$2,476) lowered the average income of the nonrespondents.

The average net worth of the respondents was \$44,325 compared with \$41,672 for the nonrespondents. This \$2,650 difference although not statistically significant was influenced by the lower net worth of \$29,654 for the "deceased." The remaining two categories of nonrespondents had little effect.

In summary, families responding in 1965 tended to be younger, with larger farms, smaller families, higher net worth and more life insurance. However, differences between the 1955 families who responded or did not respond in 1965 were statistically significant regarding life insurance, at the one percent level, ages of husband and wife, at the five percent level, and the Morse-Johnston scale, at the ten percent level. Those not significantly different were size of farm, size of family, income and net worth. Among the three nonrespondent categories, the "deceased" were least like the respondents. They tended to be those who were older in 1955 and had the characteristics of that extreme age group.

RECOMMENDATIONS

It is recommended that the next phase of the over-all study be undertaken, namely to contrast the families in 1965 with their status in 1955 according to the family characteristics of age of husband, age of wife, Morse-Johnston Scale, size of farm, size of family, income, net worth and life insurance.

However, since the 80 percent who responded in 1965 were not a representative sample of the 527 families who participated in 1955, the differences in respondents and nonrespondents, as reported in this study should be taken into consideration and properly noted.

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APPENDICES

APPENDIX A

A Resume of "Economic Status & Financial Security Provisions of Kansas Farm-Operator Families, 1955"

This resume has been prepared to help direct attention to some of the points of interest in this study.

Area differences

The map on page 84 shows the area numbers (in squares) used on page 9. There is a noticeable difference between eastern and western Kansas, particularly in value of net worth, size of farm, husband's years of school completed and income.

Age Differences

I was interested in some of the differences that show up when families were classified either by the age of husband (p. 10) or by age of wife (p. 11). Net worth was highest for those in their 50's and those who started farming in the early 1920's.

- The younger ones went to school longer
- The younger ones received more off-farm income
- The younger wives were more likely to be employed off the farm
- The younger families were more likely to be indebt.

Net worth - Economic Status

When the 527 families were divided into five equal groups according to their net worth, (p. 13) the biggest jump in net worth values came at the top. That is, the average net worth of those in the top 20% was \$92,000, but the average for the next 1/5th was only \$48,000. The next two groups averaged \$28,000 and \$15,000. The lowest 1/5th of the families had a net worth of \$5,000.

The estimated value of gifts or inheritance increased with the net worth. And the percent of wives working outside the home was highest among the lower net worth groups.

The electrification of homes seemed to be unaffected by the economic status of families - most everyone had lights.

When were you married

Husbands were 3.6 years older than their wives. (See p. 19) But both were married at an older age at the time of interview than in earlier generations. Those who had celebrated their golden wedding anniversary were married when he was 22 and she 19; whereas the most recent brides and grooms were 7 years older, he 29 and she 26.

A high school education was attained by wives married in the years 1926-30, but not until 1936-40 were the majority of husbands and wives high school graduates.

Since 1945 farm families have been married more years than they have farmed in Kansas; up until 1945 they were married before they began farming.

Economic insecurity is normal

The economic climate for farmers has not been stable. The discussion on page 23 of economic security may bring to mind some of the lean years you have undoubtedly experienced.

The economic cycles of your generation are described on page 24. Note the economic waves and troughs over which different family generations have navigated. Some have had it rougher than others.

Farm ownership

Most farmers dream of owning their own farm land. This was realized by over one-half of the husbands 50 years and older (See p. 27).

The picture was clear that younger farmers "rent-in", and older farmers "rent-out" land (p. 27).

Those in the highest net worth group were big renters of land (p. 29).

Eventually we are all education fall-outs

Education fall-outs are shown on pages 32-36. Everyone had completed at least "8th grade or less" so the chart begins with 100% and starts dropping out families as the "grades completed" increase. Another way to read these figures is to sight across the 50% line, and those which cut across it from right to left have survived longer in school.

House size and family size.

The family, unlike a turtle, does not fill out its shell. The smaller family units were "over-housed" (p. 43). They were a much older group too (p. 12).

Credit

The credit picture has changed greatly throughout the nation since 1955. In 1955 even the younger families were reluctant to use credit. And the older families tended to use it primarily for basic purchases, such as buying farm land and equipment. Credit was used by families when they needed to make larger expenditures than anticipated.

Were you in debt?

The wealthy had the most debt, but their assets were also high (p. 55). Those with the higher debt-asset ratio were the families under 35, with more children, especially pre-school children, and with low net worth. Those without children tended to be freer of debt.

Most of your debts were in livestock and farm machinery if you were getting started in 1955. If you were older, wealthier, and better established, most of your debts were for land purchases.

Income

Farm income for just one year is often a deceptive measure of a family's well being, yet total income seems to hold steady at about 10% of net worth (p. 64). Income from non-farm work and wife's employment are important for the lower farm income families (p. 65). Almost three-fourths of all families had some non-farm income, and this exceeded farm income for about half of the farmers.

Insurance

We are convinced that most families have not reviewed their insurance programs for some time. We urge that you do so.

Why were you picked?

You were included in the survey if your number came up. Three non-urban counties in each of the ten economic areas in the state were selected at random. Then three townships in each county - and ten farm families in each township were selected at random (p. 83). A published table of random numbers was used, so your family was "in" if its number came up. This is the best system for obtaining a fair sample. It avoids showing any prejudice or favoritism. By hindsight, it seems to have been a good sample (pp. 88-91).

QUESTIONNAIRE

We are interested in knowing how mobile farm families are.

Do you live now where you lived in 1955?

- ☐ Yes, I live in same home
☐ No, I live in different home
 ☐ On same farm
 ☐ On different farm
 ☐ Off farm

(Check
one
in
each
group)

- ☐ In same county
☐ In different county
☐ In same state
☐ In different state

How have your farming practices changed since 1955?

In 1955 you were farming.
 Are you still farming? ☐ Yes ☐ No

How has the size of your farm operation changed in the past 10 years?

- Your 1955 situation is recorded.
- Show your 1965 situation in the 1965 column.

	1955	1965
Acres owned	<u>600</u>	<u>800</u>
Acres rented from others	<u>120</u>	<u>120</u>
Acres rented to others	<u>120</u>	<u>120</u>
Acres farmed	<u>600</u>	<u>800</u>

We are interested in the changes in your family since 1955.

- The ages of your 1955 family members living at home are recorded.
- Show your 1965 situation in the 1965 column.

Family	1955 (age)	Ages and location of 1965 members		
		at home	deceased	moved
Husband	55			
Wife	52			
Boys	12, 10			
Girls	15			
Relatives				
Others				
Additional members				

RETIREMENT AND ESTATE PLAN

In 1955 we asked you "How much consideration has your family given to retirement or to cutting down on your farming operation because of age or for some other reason?"

.How has this changed in the past 10 years?

In 1955 you
replied

Your reply for
1965 is

- | | |
|--|--------------------------|
| <input type="checkbox"/> Little or none | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Considered the matter but have not reached a definite decision | <input type="checkbox"/> |
| <input type="checkbox"/> Have developed fairly definite plans | <input type="checkbox"/> |

In 1955 we asked, "Do you expect to cut down on your farming operations as you get older?"

You replied: ☒ Yes ☐ No ☐ Uncertain

.How has this changed in the past ten years?

Had planned to cut down and ☐ did or ☐ did not.

Had not planned to cut down but ☐ did or ☐ did not.

In 1955 we asked, "Do you expect eventually to retire and give up all work on the operation of your farm?"

You replied: ☒ Yes ☐ No ☐ Uncertain

.How has this changed in the past ten years?

Had planned to retire and ☐ did or ☐ did not

Had not planned to retire but ☐ did or ☐ did not

Where will you and your wife
expect to live after you retire?

In 1955 you
replied

Your reply for
1965 is

- | | | |
|---------------------------------|-------------------------------------|--------------------------|
| On farm | <input type="checkbox"/> | <input type="checkbox"/> |
| On another farm as non-operator | <input type="checkbox"/> | <input type="checkbox"/> |
| In small town | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| In city | <input type="checkbox"/> | <input type="checkbox"/> |
| Uncertain or do not know | <input type="checkbox"/> | <input type="checkbox"/> |

With whom would you and your wife
like to live after retirement?

In 1955 you
replied

Your reply for
1965 is

- | | | |
|-----------------------|-------------------------------------|--------------------------|
| With children | <input type="checkbox"/> | <input type="checkbox"/> |
| With other relatives | <input type="checkbox"/> | <input type="checkbox"/> |
| Alone | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Home for the aged | <input type="checkbox"/> | <input type="checkbox"/> |
| Uncertain | <input type="checkbox"/> | <input type="checkbox"/> |
| Other (Specify) _____ | <input type="checkbox"/> | <input type="checkbox"/> |

In 1955 we asked, "If prices stay the same as they are now, about how much cash do you think you and your wife will need to live fairly comfortable after retirement?" You indicated in 1955 that you would need \$320.00 per month.

.What do you think this figure should be now? \$ _____ per month.

In 1955 the following members of your family had made a will. We are interested to know how this has changed in the last ten years.

.Please check in the 1965 column those who now have wills.

	1955	1965
Husband	<input type="checkbox"/>	<input type="checkbox"/>
Wife	<input type="checkbox"/>	<input type="checkbox"/>
Husband and wife	<input checked="" type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>
Do not know	<input type="checkbox"/>	<input type="checkbox"/>

What assistance did you have in making wills?

.Check in the 1965 column if you have consulted the same or other authorities in the past 10 years.

	1955	1965
Friend	<input type="checkbox"/>	<input type="checkbox"/>
Attorney	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bank officer	<input type="checkbox"/>	<input type="checkbox"/>
Insurance Agent	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>	

IF YOU ARE 50 YEARS OF AGE AND OVER ANSWER THE NEXT TWO QUESTIONS.

In 1955 we asked if you had curtailed your farm operation over the last few years. You replied: ☐ Yes ☐ No ☒ No reply

In 1955 you (had)(had not) curtailed your farm operations.

.Please check your 1965 situation in the 1965 column.

	1955	1965
Changed type of farming	<input type="checkbox"/>	<input type="checkbox"/>
Reduced acreage operation	<input type="checkbox"/>	<input type="checkbox"/>
More hired labor	<input type="checkbox"/>	<input type="checkbox"/>
More family labor	<input type="checkbox"/>	<input type="checkbox"/>
Transferred some management to other	<input type="checkbox"/>	<input type="checkbox"/>
Transferred all management to other	<input type="checkbox"/>	<input type="checkbox"/>
Completely retired from farming	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable		<input checked="" type="checkbox"/>

IF YOU ARE 65 YEARS OR OLDER, PLEASE ANSWER THESE QUESTIONS

The Social Security Act was amended to provide two categories of health insurance protection for the aged beginning July 1, 1966; (1) Hospital (2) Medical Insurance.

Hospital Insurance (No extra cost)

Will you be eligible to participate? ☐ Yes ☐ No
☐ Do not know

If no, why are you ineligible? _____

Medical Insurance (Monthly premium is \$3.00)

Did you sign up for it? ☐ Yes ☐ No ☐ Do not know

If no, why did you choose not to participate in this program? _____

Do you have additional medical insurance, such as Blue Cross-Blue Shield or private insurance? ☐ Yes ☐ No ☐ Do not know

If yes: Have you taken it out recently to supplement the Medicare program? ☐ Yes ☐ No ☐ Do not know

Or: Is it a policy you have held for some time?
☐ Yes ☐ No ☐ Do not know

If no: Did you have a medical insurance policy you have dropped since medicare is now available?
☐ Yes ☐ No ☐ Do not know

Or: Have you not had sufficient medical coverage?
☐ Yes ☐ No ☐ Do not know

LONGITUDINAL STUDY OF
KANSAS FARM FAMILIES -
ASSESSMENT OF A MAIL SURVEY

by

Marilyn Anderson

B. S., Kansas State University, 1965

AN ABSTRACT OF A MASTER'S THESIS

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In 1955 a study was made of Kansas farm-operator family financial security (Morse, 1965). This study used, for purposes of analysis, the family characteristics of age of husband, age of wife, Morse-Johnston scale (life cycle), size of family, size of farm, income, net worth, life insurance. It provided a profile of farm family life at that specific time. In 1965 the feasibility of a mail survey to follow-up the 1955 survey was explored. Such data, collected ten years later as a longitudinal study, would provide comparative information and give insight into trends in farm mobility, change in farm size and other farm-family related factors.

The mail survey was made in the summer of 1966. The objectives of this particular study were to: (1) estimate the percentage return from the mail survey and (2) compare the 1955 families, responding and not responding in 1965, by their family characteristics, and to test for significant differences.

The procedure included a maximum of six and a minimum of two mailings to the 527 families surveyed in 1955. An introductory mailing reminded the families of their participation in 1955, showed them how the data were used and reintroduced them to the study. The second mailing was a questionnaire. It was mailed by certified mail to utilize the postal service in locating as many families as possible and identifying their present location. As many as three follow-up letters were sent, with the response rate of each mailing decreasing from 55 to 25 percent.

Results of the survey produced 80 percent usable returns and some information on 94 percent of the families. Of this 94 percent, two

percent were deceased, six percent had moved or could not be located, and six percent refused.

The families were classified by four response categories. They were compared according to their 1955 family characteristics. According to the Kolmogorov-Smirnov test they were significantly different with regard to four basic family characteristics: ages of husband and wife, at the five percent level; Morse-Johnston scale, at the ten percent level; and life insurance, at the one percent level. The families were not significantly different in regard to farm size, family size, income and net worth.

Families responding in 1965 tended to be younger, with larger farms, have smaller families, higher net worth and more life insurance. Among the three nonrespondent categories, the "deceased" were least like the respondents. They tended to be those who were older in 1955 and had the characteristics of that extreme age group.

It is recommended that the next phase of the over-all study be undertaken to contrast the families in 1965 with their status in 1955. However, since the 80 percent who responded in 1965 are not a representative sample of the 527 families who participated in 1955, the differences in respondents and nonrespondents, as reported in this study should be taken into consideration and properly noted.